

**FOLLOW-UP REPORT**

**1997 NASA/MSFC SUMMER TEACHER ENRICHMENT PROGRAM**

**George C. Marshall Space Flight Center**

**and**

**The University of Alabama in Huntsville  
Huntsville, Alabama**

**Submitted to**

**NASA Headquarters  
Washington, D.C.**

**MSFC Grant NAG8-1388**

**Program Directors**

**Gerald R. Karr  
Mechanical and Aerospace Engineering  
University of Alabama in Huntsville**

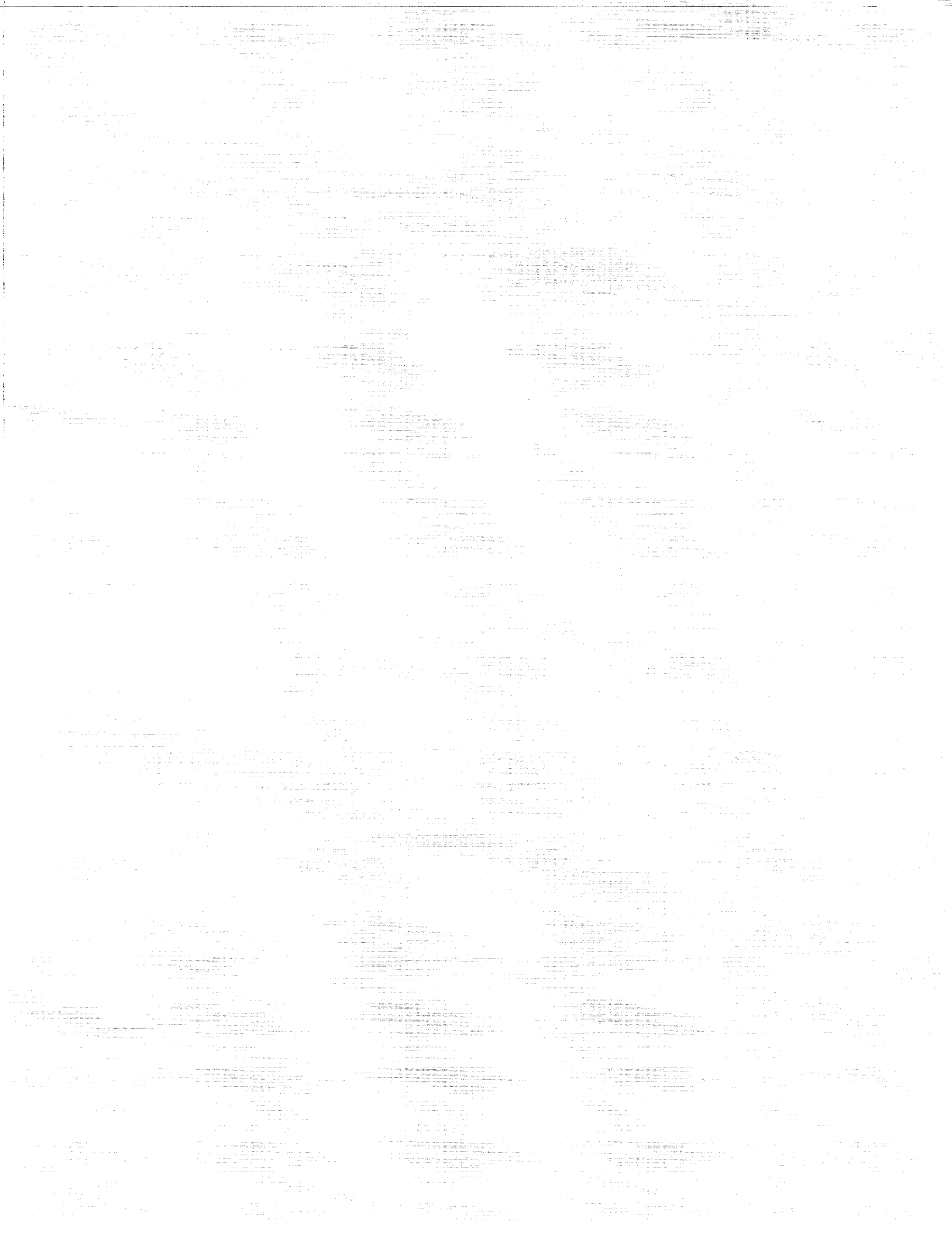
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**June 1998 1229**

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## **I. INTRODUCTION**

This is a report on the follow-up activities conducted for the 1997 NASA Summer Teacher Enrichment Program (STEP), which was held at the George C. Marshall Space Flight Center (MSFC) for the seventh consecutive year. The program was conducted as a six-week session with 17 sixth through twelfth grade math and science teachers from a six-state region (Alabama, Arkansas, Iowa, Louisiana, Mississippi and Missouri). A list of the 1997 STEP participants is found in Appendix A. The program began on June 8, 1997, and ended on July 25, 1997. Dr. Gerald Karr of the University of Alabama in Huntsville was the University Director of STEP. Mrs. Martha Hammond of the University of Alabama in Huntsville was the STEP Coordinator. The 1997 program was funded by the National Aeronautics and Space Administration (NASA).

The long-term objectives of the program are to:

- increase the nation's scientific and technical talent pool with a special emphasis on underrepresented groups,
- improve the quality of pre-college math and science education,
- improve math and science literacy, and
- improve NASA's and pre-college education's understandings of each other's operating environments and needs.

Short-term measurable objectives for the MSFC STEP are to:

- improve the teachers' content and pedagogy knowledge in science and/or mathematics,
- integrate applications from the teachers' STEP laboratory experiences into science and math curricula,
- increase the teachers' use of instructional technology,
- enhance the teachers' leadership skills by requiring them to present workshops and/or inservice programs for other teachers,
- require the support of the participating teacher(s) by the local school administration through a written commitment, and
- create networks and partnerships within the education community, both pre-college and college.

The follow-up activities for the 1997 STEP included the following:

- academic-year questionnaire,
- site visits,
- academic-year workshop,
- verification of commitment of support, and
- additional NASA support.

## II. ACADEMIC-YEAR QUESTIONNAIRE

An academic-year questionnaire (see Appendix B) was mailed to the participants the first week of February 1998. The questionnaire was designed to provide STEP administrators with updated information (as of April 1998) from each STEP participant in the following areas: (1) Commitment of Support; (2) Dissemination of Materials; (3) STEP Education Activities; (4) Workshops; (5) Networks; and (6) Miscellaneous. The results of the questionnaire have been compiled and are shown in Appendix B.

All seventeen of the questionnaires were returned. Some questionnaires were not answered in their entirety. A brief summary of the responses to each of the areas addressed in the questionnaire follows.

### Commitment of Support

This area of the questionnaire was probing for information regarding the degree to which the school administrators had met their required commitments of support for the STEP teachers at the mid-point of the second semester of the academic year. The "Areas of Minimum Commitment" is shown in Appendix C. Questions were asked about the installation of the computer, modem, and phone line (or Internet access) in the teacher's classroom; the extent of the teacher's usage of Spacelink; the degree of support from the superintendent and principal for the STEP teacher; and receipt of reimbursement for travel expenses by the teacher to attend a professional math or science conference.

The responses indicated that 10 of the 17 teachers who responded had received all of the equipment committed by the school administration (computer, modem, phone line or Internet access and communications software). A few responses indicated that Internet access from the school and/or classroom was not yet available. Thirteen of the teachers who responded had accessed Spacelink (but not necessarily from their classrooms). At least eight of those teachers stated they were actually using the Spacelink information in their classrooms with their students.

Fourteen of the teachers indicated that the superintendents and/or principals had been very supportive of their efforts to obtain the computer equipment and Internet access, conduct workshops, attend professional conferences, and implement the STEP activities in the classroom. Two teachers who responded stated that their superintendents and/or principals had provided average support and one teacher rated the principal and superintendent in the "Not very supportive" range.

Eleven of the teachers had been to at least one professional math or science conference. Eight of the teachers had been reimbursed for the travel expenses to at least one conference. Three of the seventeen teachers were not reimbursed for travel expenses to a math or science conference. Two teachers indicated they were reimbursed for attending more than one math or science conference, and three of the teachers were not reimbursed for travel expenses to an additional conference. Five of the teachers had not attended a conference, but most of them



indicated plans to attend a conference before the end of the academic year. (One teacher did not respond to the question.)

### Dissemination of Materials

This section of the questionnaire identifies the extent to which the teachers have shared the education activities developed by the STEP participants and other NASA resource materials, including printed materials, posters, lithographs, videotapes, etc., with teachers in their schools and/or districts. A considerable multiplier effect has been demonstrated.

The STEP education activities were shared with 165 other teachers in the STEP teachers' schools, 73 teachers at other schools in the STEP teachers' school districts, and four teachers outside the STEP teachers' school districts. Therefore, the 1997 STEP teachers have exposed over 240 other teachers to the STEP education activities.

The NASA resource materials were also shared with other teachers. All seventeen of the 1997 STEP teachers responded that they have shared the NASA materials with over 180 other teachers and that over 6,900 students have benefited.

#### (A) STEP Education Activities

Sixteen teachers stated that they had shared the STEP education activities with other teachers in their schools and/or districts. Eight teachers stated that they had shared the STEP education activities with teachers in other schools in their districts. Over 240 teachers in the schools and districts of the STEP participants received STEP education activities. Two STEP participants indicated that they had provided the STEP education activities to teachers in other school districts. Approximately four teachers in other school districts received STEP education activities. In addition to the total of over 240 teachers who received STEP activities, the responses on the questionnaire indicate that over 3800 students at participants' schools have been exposed to the STEP activities directly through the STEP teachers and other teachers at the same schools. By including other schools, both in and out of the participants' school district, the teachers' responses indicate that over 8,200 students have been exposed to the STEP education activities.

#### (B) NASA Education Resources

Seventeen STEP teachers stated that they had shared the NASA education resources with other teachers in their schools; eight teachers had shared the NASA education resources with teachers in other schools in the district; and three teachers had shared the education resources with teachers outside their school districts. Based on the responses on the questionnaire, over 180 teachers received NASA education resources from STEP participants, and over 6,900 students have been exposed to the NASA materials.

### Education Activities

This area of the questionnaire provided information relating to the use of the education activities and projects that were developed during the 1997 STEP at MSFC. It also provided insight into the incorporation of new teaching strategies into existing plans (cooperative learning, learning cycle, portfolios, peer evaluation, etc., which were taught in the graduate-level education course as part of the education component of STEP).

Fifteen of the participants who responded to the questionnaire stated that they had used at least one STEP activity (or part of an activity) with their students. The questionnaires indicated that many of the teachers were using the same activities, while some of the other activities were not being used at all. Two of the teachers stated that they have not used any of the activities.

The responses indicate that all seventeen of the teachers have included new teaching strategies into existing lesson plans.

### Workshops

One of the requirements placed on the 1997 STEP participants was to conduct two workshops or inservice programs in their schools or school districts. The intent of the workshops was to share the STEP experience with other teachers and share STEP education activities and NASA education resource materials. It was hoped by the STEP administrators that a multiplier effect of the STEP experience would result from the sharing of the experiences and materials by the teachers in their schools and districts.

Eight of the teachers had conducted the two required workshops by the mid-point of the second semester of the academic year. Six of the teachers had conducted one workshop by the mid-point of the second semester. Most of the teachers indicated that they plan to conduct the remaining workshops by the end of the academic year.

### Networks

One of the goals of the 1997 STEP was to require the school systems to provide computer equipment and Internet access so that all the participants could be networked electronically. The teachers would then have an avenue through which they could communicate with each other to share education ideas and lesson plans and provide support for each other.

As stated in the "Commitment of Support" section, ten of the teachers had their computer equipment installed by the mid-point of the second semester of the academic year. Thirteen teachers indicated that they had accessed Spacelink at that point in time, but not all of them had accessed Spacelink from their classrooms. (Some teachers were accessing Spacelink from home and/or other computers in their school buildings which were connected to the Internet.)

Twelve of the teachers indicated on the questionnaire that they were communicating with other STEP teachers. The responses indicated that the teachers were networking primarily by e-mail, but also by telephone and fax.

STEP participants were encouraged to remain in contact with their MSFC hosts and invite them to visit the STEP classrooms during the 1997-98 academic year. Six teachers indicated that they had communicated either electronically or by telephone with their NASA hosts since the conclusion of STEP.

### Miscellaneous

This portion of the questionnaire requests information on a variety of topics of interest to the STEP administrators. The questions and comments are found in Appendix B. Of particular interest was additional support NASA could provide. The one teacher who responded indicated that NASA might provide help in obtaining grants and/or equipment for upgrading technology in the classroom. (Lack of state school funding and local support have created financial difficulties for local schools.)

## **III. SITE VISITS**

A major component of the follow-up to MSFC's STEP was site visits to the schools of selected participants. Twelve of the 17 STEP teachers (71%) were visited by Mrs. Hammond. Dr. Karr participated in visits to six of the twelve teachers. The site visits began in February 1998 and concluded in March 1998. A schedule of the site visits can be found in Appendix D. Each visit consisted of an informal interview with the STEP participant and in many instances the school principal. The purpose of the visits was to determine the extent to which the teachers were using the STEP experience and materials in their schools and to verify that the written commitment of support made by each school system was being honored. Of particular interest to the STEP administrators was the computer equipment, software, and Internet access provided to each STEP participant by the school administration and the extent to which the teachers were accessing Spacelink.

During the site visits, slides and photographs were made of most of the teachers in their classrooms with students. In the past, the slides and photographs have been shown at the STEP Academic-Year Workshops which were conducted in the spring as follow-up activities. The slides and photographs were used to provide a visual summary of the teachers and schools which were visited as part of the STEP follow-up.

The information gained from the site visits indicated that in almost all cases the administrators of the schools had been briefed by their teacher(s) on the details of the STEP experience at MSFC. The administrators who were interviewed during the site visits were very supportive of the efforts of the teacher(s) to share the STEP experience with students and other teachers and were very appreciative of the opportunity for the teacher(s) to participate in STEP.

The site visits also provided insight into the extent of the networking taking place among the teachers. Many of the teachers had been networking with other STEP teachers on a fairly regular basis, but the networking was not universal among the teachers visited. Site-visit reports are found in Appendix E.

Site visits also serve to increase the self-esteem of the teachers who are visited. The STEP administrators were viewed as representing NASA and were well received by the teachers, students, and administrators at the schools which were visited.

#### **IV. ACADEMIC-YEAR WORKSHOP**

An academic-year workshop was conducted at the University of Alabama in Huntsville (UAH) and the Executive Lodge Suite Hotel on March 20-21, 1998, as one of the STEP follow-up activities. Twelve of the participants traveled to Huntsville to attend the workshop. STEP provided approximately 50% of the travel and lodging expenses for the participants to attend the workshop. The remaining 50% of the expenses were provided by the school systems of the participants as part of the written commitment of support made by each system for its participating teacher(s).

The workshop began on Friday, March 20, at UAH. The participants were encouraged to visit their MSFC hosts in the labs on Friday morning before reporting to the workshop in the afternoon. The workshop provided an opportunity for the participants to renew friendships formed during the 1997 summer program and to share the ways they have used the STEP experience and materials in their school systems. It also provided opportunities for participants to enhance their math and science knowledge by touring and observing demonstrations in selected engineering laboratories during Open House at Technology Hall, the UAH building which houses the Mechanical and Aerospace Engineering classrooms and laboratories. The teachers also participated in a hands-on Spacelink activity and interactive presentation by Jeff Ehmen, MSFC Education Branch, and three of the Spacelink office staff members. The presentation helped the teachers to increase their proficiency in the use of Spcelink. The teachers also had an opportunity to provide suggestions to the Spacelink staff members relating to several proposed changes in the current Spacelink format.

The workshop format consisted of small group discussions, open discussions, presentations by three STEP teachers, tours and demonstrations in the UAH engineering laboratories, a Spacelink presentation, and a dinner guest speaker. The workshop agenda is found in Appendix F.

The workshop continued on Saturday, March 21, at the Executive Lodge Suite Hotel, the apartment complex which housed the participants during the summer and for the two-day workshop. The participants were engaged in a variety of interactive activities on Saturday.

The participants completed a workshop evaluation at the conclusion of the two-day event. The evaluation responses indicated that the workshop was highly successful in terms of being informative and useful to the participants. The evaluation responses have been compiled in Appendix G. The small group and open discussion transcripts are found in Appendix H.

## **V. VERIFICATION OF COMMITMENT OF SUPPORT**

As stated in Section B of this report, each school system was required to make a minimum commitment of support for its participating STEP teacher(s). (See "Areas of Minimum Commitment in Appendix C.) The extent to which the commitments of support have been honored has been monitored periodically during the academic year through the academic-year questionnaire, site visits, and the Academic-Year Workshop. All of the 1997 STEP participants were provided a "Verification of Administrative Support" form. This form was mailed in March 1998. The form required the signatures of the participant, his/her principal, and superintendent. This form served as a final evaluation.

Fourteen of the seventeen teachers who were asked to complete the forms returned them. The compiled results can be seen in Appendix I. Some teachers responded that their school systems had provided some categories of support even though it had not been requested. The responses provided in the "Minimum Commitment" section of the form indicate the following was true (as of March 1998) for the teachers who returned the audit forms: (1) 79% of the teachers received release time to conduct a workshop or inservice program; (2) 71% of the teachers had been granted release time to attend a professional conference; (3) 75% received reimbursement for travel expenses to conferences or to conduct workshops; (4) 69% received all the equipment needed to access Spacelink; (5) 67% (8 of the 12 participants who attended the Academic-Year Workshop) received at least 50% travel support from their administration. One teacher requested support but did not attend the workshop because of illness. Most of the remaining teachers who requested support and attended the workshop indicated that they were expecting to receive reimbursement by the end of the school year.

## **VI. ADDITIONAL NASA SUPPORT**

STEP administrators have continually encouraged the STEP participants to call upon NASA/MSFC/STEP whenever they need additional support for the space-related education activities being implemented in their classrooms and/or schools. The STEP Coordinator has provided continuing support for a variety of requests such as arranging tours for STEP participants and their students, providing the names of contacts at MSFC for various subject matters; providing specific NASA education materials needed for workshops and classrooms; providing additional information about Spacelink, etc.

## **VII. STEP REUNION**

A "STEP reunion" at the NSTA National Convention in Las Vegas was an additional follow-up activity planned as part of the 1997 STEP. It was hoped that the reunion would serve to strengthen the networking of the current group of participants with groups from past years; to provide opportunities for the sharing of successful lessons and other space-related activities; to provide ideas for continuing the successful use of STEP and NASA education resources, as well as technology, in the classroom; and to foster the enthusiasm and friendships inherently found within the "STEP family."

An informal preliminary survey of all former STEP teachers was conducted by the STEP Coordinator in the fall 1997. Each teacher was mailed the location and date of the proposed "1998 STEP Reunion" and was asked to respond by mail or e-mail if he/she were planning to attend. Each teacher was also asked to suggest alternate "reunion" sites and dates so that the "reunion" could be rescheduled to allow more teachers to attend. The lack of response to the survey implied that apparently most of the teachers were not planning to attend the convention, so conducting the "reunion" in Las Vegas would not be cost effective for STEP. The "reunion" was not held at the NSTA Convention as planned, nor was it rescheduled, because no alternate sites or dates were submitted by STEP teachers.

## **VIII. CONCLUSIONS AND RECOMMENDATIONS**

Follow-up activities strengthen the translation of the STEP experience to the classroom. The information gained from the follow-up activities (see Section I) indicates that the 1997 STEP was highly successful. All of the short-term goals (see Section I) were achieved. The follow-up activities indicate that through the STEP program requirements, the variety of experiences offered during the six weeks, and the required commitment of support for the STEP teachers by the local school administrations, STEP achieved the following short-term goals: (1) increase the teachers' use of instructional technology; (2) enhance the teachers' leadership skills by requiring them to present workshops and/or inservice programs for other teachers; (3) require the support of the participating teacher(s) by the local school administration through a written commitment; and (4) create networks and partnerships within the education community. The follow-up activities also revealed that the STEP education course, coupled with a variety of STEP activities, especially the lab observation/work component, are very effective means for achieving the remaining short-term goals: (1) improve the teachers' content and pedagogy knowledge in science and/or mathematics, and (2) integrate applications from the teachers' STEP laboratory experiences into science and math curricula.

As mentioned earlier (in the Dissemination of Materials section), it was hoped by the STEP administrators that a multiplier effect of the STEP experience would result from the 1997 STEP participants sharing the experiences and materials with students and other teachers. The

academic-year questionnaire indicates that over 400 teachers (excluding 1997 STEP participants) received STEP and/or NASA education materials. Based on the number of teachers who received STEP/NASA education materials, we can conservatively estimate that several thousand students also received STEP and/or NASA education information. If each of the 400 teachers mentioned above shared the information with only one class of 30 students, then more than 12,000 students were exposed to STEP education activities and/or NASA education resource materials.

The information gained from a variety of follow-up activities provides STEP administrators with a highly effective means of evaluating the degree of achievement of the STEP short-term goals. Therefore, based on the success of the follow-up activities for the 1997 program, it is recommended that NASA Headquarters strongly consider renewing the funding for the Summer Teacher Enrichment Program at the Marshall Space Flight Center. Many of the former STEP participants have commented that STEP was "an experience of a lifetime." The STEP teachers are some of the most credible ambassadors for NASA, especially now that public support seems to be declining. Thousands of students have been exposed to the excellent NASA education resources because of STEP. The knowledge of those students has been enriched because of the exposure of all the teachers who participated in STEP to the expertise of the NASA scientists and engineers and the cutting-edge technology at the Marshall Space Flight Center. STEP brought "NASA" to the "grass roots level," to the students who are the engineers and scientists of the future.

## **APPENDIX A: 1997 STEP PARTICIPANTS**



# 1997 STEP SCHOOL NAMES AND ADDRESSES

	Last Name	First Name	School Name	School Address	City	State	ZIP	School Phone	School Fax
1	Andresen	Rebecca	Ms. Williams Intermediate School	3040 North Division	Davenport	IA	52804	319/391-6550	319/391-0149
2	Blankenship	Tim	Mr. Everton Public School	P. O. Box 107	Everton	MO	65646	417/535-2221	417/535-4105
3	Chauvin	Kevin	Mr. Morgan City High School	2400 Tiger Drive	Morgan City	LA	70380	504/384-1754	504/384-7054
4	Clesi	Georgia	Mrs. East St. John High School	1 Wildcat Drive	Reserve	LA	70084	504/536-4226	504/536-4286
5	Dooley	Gannon	Mr. Loreauville High School	P. O. Box 446	Loreauville	LA	70552	318/229-4701	318/229-4275
6	Francis	Timothy	Mr. M. D. Shannon Elementary School	409 Brashear Avenue	Morgan City	LA	70380	504/385-4970	504/385-4971
7	Gibbs	Donald	Mr. Arab Junior High School	911 Old Cullman Road	Arab	AL	35016	205/586-6074	205/586-1348
8	Hudock	Ray	Mr. Riverview Gardens Middle School	9800 Patricia Barkalow Drive	St. Louis	MO	63137	314/869-2505	
9	Hull	Ron, Jr.	Mr. Viburnum High School	P. O. Box 368	Viburnum	MO	65566	573/244-5521	573/244-5521
10	Mahan	Cynthia	Mrs. Paron High School	22265 Highway 9	Paron	AR	72122	501/594-5622	501/594-5391
11	Maloy	Stephen	Mr. Phillips Preparatory School	3255 Old Shell Road	Mobile	AL	36607	334/473-9061	334/473-9064
12	Moon	Cindy	Mrs. Biggersville High School	R. R. 4, Box 349	Corinth	MS	38834	601/286-3542	601/286-3023
13	Nelson	Scott	Mr. Baker High School	8901 Airport Boulevard	Mobile	AL	36608	334/633-0330	334/607-0889
14	Stephens	Glenn	Mr. Northwest High School	3746 Highway 104	Opelousas	LA	70570	318/543-2001	
15	Sullivan	Julia	Ms. Lake Hamilton Junior High School	281 Wolf Street	Pearcy	AR	71964	501/767-2371	501/767-1711
16	Whaley	Roy, Jr.	Mr. Opelousas Catholic School	415 E. Prudhomme Lane	Opelousas	LA	70570	318/942-5404	318/942-5922
17	Williams	Scott	Mr. Caruthersville High School	1711 Ward Avenue	Caruthersville	MO	63830	573/333-6100	

6/9/97

## **APPENDIX B: ACADEMIC-YEAR EVALUATION RESPONSES**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
ACADEMIC-YEAR EVALUATION**

**Please answer all questions completely.** The questionnaire addresses the following areas: (A) Commitment of Support; (B) Education Activities; (C) Dissemination of Materials; (D) Workshops; (E) Networks; and (F) Miscellaneous. The information that you provide is very important because it will be incorporated into a final report for NASA Headquarters and the Marshall Space Flight Center. **Please answer each question as completely as possible at this point in the academic year. Attach additional sheets if necessary. Thank you for taking the time to provide this valuable information to us.**

**A. COMMITMENT OF SUPPORT**

**Note: N. R. indicates No Response**

**All 17 teachers completed the evaluation.**

1. Has all of the equipment committed by your school administration (a computer, modem, software, printer, and a phone line or direct Internet access) been provided in your classroom so that you can access Spacelink?  
Yes [10] No [7] N. R. [0]
2. If you have not received all of the equipment yet, list below the equipment you have received from your school system as part of their commitment of support to you as a STEP participant.
  - The school library is connected, but because of renovation I do not have a phone line in my classroom.
  - Computer
  - Will receive all equipment at one time.
  - I already had a computer in the classroom and paid for the service with my classroom funds.
  - Laser printer
  - Laser printer, upgraded computer system, direct Internet access (Arkansas Public School Computer Access Network [APSCAN] requires special card in computer; first one we received didn't work, but new one is on order.)
  - I have everything except the printer in my room. I share a printer with other teachers that are in the conference room.
  - A computer, modem, software, printer, phone line, TV/computer converter and 27" TV; internet access will be complete before school year is over.
3. If you have not received all of the equipment, what is the anticipated date for the installation of the remainder of the equipment in your classroom?
  - Not sure
  - April, 1998
  - March 1, 1998
  - Not sure
  - Late March, 1998
  - I don't think they plan to provide an individual printer.
  - Before school year is over

4. If #1 above is yes, have you accessed Spacelink from your school?

Yes [13] No [1] N. R. [3]

(1) About how often do you use Spacelink? 0-1 times/week [11] 2-3 times/week [2]  
4-5 times/week [1] 6+ times/week [0] N. R. [3]

(2) Do you use it with students in your classroom? Yes [8] No [6] N. R. [3]

(3) Have you encountered any problems with Spacelink? Yes [1] No [12] N. R. [4]

Please describe briefly any problems you have encountered which may be of interest to the Spacelink administrator.

5. In general, how supportive are your principal and superintendent of your efforts to share the STEP experience and implement the education activities (with both students and teachers) in your school and/or school system? Please circle only one number on each scale below. (Please do not add numbers higher than 5 to the scale.)

Principal:                      Not supportive                      Very supportive  
   1           2 (1)           3 (2)           4 (4)           5 (10)

Superintendent:           Not supportive                      Very supportive  
   1 (1)           2           3 (2)           4 (3)           5 (11)

6. Have you been to at least one professional math or science conference this year? (STEP requires that you attend at least one professional conference at the state, regional, or national level during the academic year.) Yes [11] No [5] N.R. [1]

If yes, please provide the following information for each conference that you have attended:

- (1) The title of the conference: **NSTA**
- (2) The date of the conference: **Dec., 1997**
- (3) The location of the conference: **Nashville, TN**
- (4) The name of any session you conducted:
- (5) If you conducted a session, please provide the approximate number of attendees at your session:

- (1) The title of the conference: **Tech Prep Biology**
- (2) The date of the conference: **Nov. 4, 10, 1997 and Jan. 26, 1997**
- (3) The location of the conference: **Northeast Mississippi Community College**
- (4) The name of any session you conducted:
- (5) If you conducted a session, please provide the approximate number of attendees at your session:

- (1) The title of the conference: **Alabama Science Teachers Association**
- (2) The date of the conference: **October, 1997**
- (3) The location of the conference: **Birmingham, AL**
- (4) The name of any session you conducted: **None**
- (5) If you conducted a session, please provide the approximate number of attendees at your session:

- (1) The title of the conference: **NSTA**
- (2) The date of the conference: **April, 1998**
- (3) The location of the conference: **Las Vegas, Nevada**
- (4) The name of any session you conducted: **Co-presenter "Prime Science"**
- (5) If you conducted a session, please provide the approximate number of attendees at your session:

- (1) The title of the conference: **National Mathematics Teachers Asso. Conf.**
- (2) The date of the conference: **Jan., 1998**
- (3) The location of the conference: **St. Louis, MO**
- (4) The name of any session you conducted:
- (5) If you conducted a session, please provide the approximate number of attendees at your session:

- (1) The title of the conference: **Joint Conf. on Teaching: Universal Connections in Math, Science, and Social Studies**
- (2) The date of the conference: **Oct., 1997**
- (3) The location of the conference: **Little Rock, AR**
- (4) The name of any session you conducted:
- (5) If you conducted a session, please provide the approximate number of attendees at your session:

- (1) The title of the conference: **LCTM State Convention**
- (2) The date of the conference: **Nov., 1997**
- (3) The location of the conference: **Shreveport, LA**
- (4) The name of any session you conducted:
- (5) If you conducted a session, please provide the approximate number of attendees at your session:

- (1) The title of the conference: **LATM State Convention**
- (2) The date of the conference: **Nov., 1997**
- (3) The location of the conference: **Shreveport, LA**
- (4) The name of any session you conducted: **Mathworks Inservice**
- (5) If you conducted a session, please provide the approximate number of attendees at your session: **25**

- (1) The title of the conference: **LATM Regional Mathematics Conference**
- (2) The date of the conference: **Nov., 1997**
- (3) The location of the conference: **Alexandria, LA**
- (4) The name of any session you conducted: **Technology in Today's Classroom**
- (5) If you conducted a session, please provide the approximate number of attendees at your session:

- (1) The title of the conference: **Interface**
- (2) The date of the conference: **Feb., 1998**
- (3) The location of the conference: **Osage Beach, MO**
- (4) The name of any session you conducted: **SHOW-ME Environ. Ed.**
- (5) If you conducted a session, please provide the approximate number of attendees at your session:

7. If #6 above is yes, were you reimbursed for your travel expenses to at least one conference? **Yes [8] No [3] N.R. [7]**  
 If you attended more than one conference, were you reimbursed for travel to more than one conference? **Yes [2] No [3] N.R. [11]**
8. If #6 is no, please provide the following information for the conference you plan to attend before the end of the academic year (a STEP requirement).

- (1) Title of conference: **Algebra for All**  
 (2) Date of conference: **April 30 - May 1, 1998**  
 (3) Location of conference: **Baton Rouge, LA**  
 (4) Title of session you plan to conduct (if applicable)
- (1) Title of conference: **Conference on CORE Curriculum**  
 (2) Date of conference: **April , 1998**  
 (3) Location of conference: **Arkadelphia, Ar**  
 (4) Title of session you plan to conduct (if applicable)
- (1) Title of conference: **NCTM National Conference**  
 (2) Date of conference: **April , 1998**  
 (3) Location of conference: **Washington, D. C.**  
 (4) Title of session you plan to conduct (if applicable)
- (1) Title of conference: **NSTA**  
 (2) Date of conference: **April , 1998**  
 (3) Location of conference: **Las Vegas, Nevada**  
 (4) Title of session you plan to conduct (if applicable)
- (1) Title of conference: **NSTA Regional Conference**  
 (2) Date of conference: **Nov., 1998**  
 (3) Location of conference: **Birmingham, AL**  
 (4) Title of session you plan to conduct (if applicable)

## **B. DISSEMINATION OF MATERIALS**

### **STEP Education Activities**

1. Have you provided any of the STEP education activities (developed by you and the other STEP teachers) to other teachers
- |  |                 |                |                 |
|--|-----------------|----------------|-----------------|
| (a) in your school?                    | <b>Yes [16]</b> | <b>No [1]</b>  | <b>N.R. [0]</b> |
| (b) in other schools in your district? | <b>Yes [8]</b>  | <b>No [8]</b>  | <b>N.R. [1]</b> |
| (c) in schools outside your district?  | <b>Yes [2]</b>  | <b>No [13]</b> | <b>N.R. [2]</b> |
2. If #1 is yes, approximately how many teachers have received STEP education activities
- |  |  |
|--|--|
| (a) in your school?                    | <b>7, 5, 40, 2, 20, 8, 5, 4, 3, 7, 10, 6, NR, 3, 3, 2, 40</b>  |
| (b) in other schools in your district? | <b>0, 0, NR, 1, 20, 20, 0, 6, 2, 12, 5, 0, NR, 0, 0, 3, NR</b> |

(c) in schools outside your district? 1, 0, NR, 0, 0, 0, 0, 2, 0, NR, NR, 0, NR, 0, 1, 0, NR

3. Approximately how many students have been benefited from the STEP education activities

(a) in your school? 120, 51, 150, 200, 25, 350, 150, 200, 85, 80, 120, 1000, 340, 52, 744, 120, 45

(b) in other schools in your district? 0, 0, NR, 100, 2000, 1400, 0, 0, 40, 40, NR, 500, 0, 0, NR, 300, 0

(c) in schools outside your district? ?, 0, NR, 0, 0, NR, 0, 0, 5, 0, NR, NR, 0, 0, NR, 0, NR

### **NASA Education Resource Materials**

1. Do you find the NASA education resource materials (lithographs, posters, fact sheets, information sheets, videos, etc.) useful in your classroom? Yes [17] No [0] N.R. [0]

List the categories of materials you find the most useful in the classroom?

**Lithographs, videos, posters**

**All lunar activities, lunar rocks, meteorology posters/activities, rocket activities/lithographs of planets, HST poster, some information sheets, videos recorded at the Teacher Resource Center**

**Posters, lithographs, fact sheets**

**Web sites, videos, posters**

**Videos, fact/information sheets**

**Fact sheets, lithographs, posters**

**Posters, pictures, videos**

**Lithographs, posters, videos, lesson plans**

**Videos with teacher support materials, posters with science and NASA info., simple demonstrations and experiments**

**Videos and posters**

**Posters, activities on rocketry and the moon**

**Posters, videos and fact sheets**

**Fact sheets**

**Videos, posters, lithographs**

**Posters**

**Posters and charts, learning activities**

2. Have you shared the NASA resource materials with other teachers

(a) in your school? Yes [17] No [0]

(b) in other schools in your district? Yes [8] No [8] N.R. [1]

(c) in schools outside your district? Yes [3] No [12] N.R. [2]

3. If yes, approximately how many teachers have received NASA resource materials

(a) in your school? 6-10, 2, 3, 2, 4, 6, 10, 7, 3, 12, 5, 4, 20, 2-3, 10, 2, 7

(b) in other schools in your district? NR, 5, 0, 0, 0, 0, 5, 7, 2, 10, 0, 20, 20, 0, 0, NR, 0

(c) in schools outside your district? NR, 0, 1, 0, 0, 0, NR, NR, 0, 5, 0, NR, 0, 0, 0, NR, 1

4. Approximately how many students have benefited from the NASA resource materials
- (a) in your school? 744, 140, 45, 150, 52, 340, 600, 120, 80, 100, 600, 150, 25, 200-300, 150, 80, 120
- (b) in other schools in your district? NR, 300, 0, 0, 0, 0, 500, NR, 40, 75, 0, 300, 2000, 0, 0, NR, 0
- (c) in schools outside your district? NR, 0, NR, 0, 0, 0, NR, NR, 0, 40, 0, NR, 0, 0, 0, NR, NR

### C. STEP EDUCATION ACTIVITIES

1. Have you used in your classroom any of the STEP education activities that you and the other teachers developed at MSFC during the summer program?  
Yes [15] No [2] N.R. [0]
2. Please list below (or attach a separate sheet) the titles of all the STEP projects and/or specific activities (lessons) that you have used with students. Briefly describe any problems you have encountered with them and suggestions for improvement. (Please don't include NASA education resource materials here.)

Density lesson, mirrors and lenses activities, order of magnitudes with solar system

Density, remote sensing

Lessons on density and rocketry

Density, Reflections of Science

Image is Everything, Countdown to Learning

Rockets, Image is Everything

Density Unit, Rocket Unit

Mirror lesson plans, rocket lesson plans

You are Here, Image is Everything, Density, Light and Sound

You are Here

Ratio and Proportion of distances and sizes of planets

Bernoulli's principle and theorem, rocket activities, impact crater activity, comparison of sizes and distances of planets

Trigonometry activities, fractals, investigation of cubes edges vs. cubes volume

Respiration activity

Liftoff to Learning

Countdown to Learning

3. If you have used STEP education activities in your classroom, approximately how many of your students have participated in the activities? 120, 120, 45, 75, 52, 80, 200, 120, 40, 85, 130, 130, 25, 63, NR, 51, 150
4. Have you incorporated the learning cycle, cooperative learning, and/or other new teaching strategies into your lesson plans? Yes [17] No [0]



## D. WORKSHOPS

1. Have you conducted **two required STEP** workshops or inservice programs **in your school or school district** which shared STEP information and/or STEP education activities that you received during the 1997 program?

Yes [8] No [8] N.R. [1]

If **yes**, please provide the following information for both workshops:

**Workshop #1:** (a) Title: **Summary of STEP Experience**

(b) Date: **Aug., 1997**

(c) Location: **Loreauville High School**

(d) Approximate # of teachers who attended: **32**

**Workshop #2:** (a) Title: **Summary of STEP Experience**

(b) Date: **Aug., 1997**

(c) Location: **New Iberia Parish Inservice**

(d) Approximate # of teachers who attended: **25**

**Workshop #1:** (a) Title: **"My Summer"**

(b) Date: **Aug., 1997**

(c) Location: **Williams School**

(d) Approximate # of teachers who attended: **50**

**Workshop #2:** (a) Title: **"NASA--My Summer Experience"**

(b) Date: **Feb., 1998**

(c) Location: **Walcott**

(d) Approximate # of teachers who attended: **14**

**Workshop #1:** (a) Title: **Spacelink**

(b) Date: **Aug., 1997**

(c) Location: **Iron County C-4 Schools**

(d) Approximate # of teachers who attended: **40**

**Workshop #2:** (a) Title: **Space Shuttle Program**

(b) Date: **Dec., 1997**

(c) Location: **Iron County C-4 Schools**

(d) Approximate # of teachers who attended: **18**

**Workshop #1:** (a) Title: **STEP into NASA**

(b) Date: **Aug., 1997**

(c) Location: **Paron School**

(d) Approximate # of teachers who attended: **22**

**Workshop #2:** (a) Title: **How Can NASA and I Help Your Science and Math Classes?**

(b) Date: **Feb., 1998**

(c) Location: **Paron School**

(d) Approximate # of teachers who attended: **20**

Workshop #1: (a) Title: **My NASA Experience**  
(b) Date: **Aug., 1997**  
(c) Location: **Lake Hamilton Junior High**  
(d) Approximate # of teachers who attended: **5**

Workshop #2: (a) Title: **Using NASA Resources**  
(b) Date: **Aug., 1997**  
(c) Location: **Lake Hamilton Junior High**  
(d) Approximate # of teachers who attended: **5**

Workshop #1: (a) Title: **NASA School Inservice**  
(b) Date: **Aug., 1997**  
(c) Location: **Morgan City High School**  
(d) Approximate # of teachers who attended: **50-60**

Workshop #2: (a) Title: **NASA/STEP Inservice**  
(b) Date: **Aug., 1997**  
(c) Location: **Morgan City Schools**  
(d) Approximate # of teachers who attended: **26**

Workshop #1: (a) Title: **STEP Inservice**  
(b) Date: **Aug., 1997**  
(c) Location: **Morgan City Schools**  
(d) Approximate # of teachers who attended: **20**

Workshop #2: (a) Title: **STEP Inservice**  
(b) Date: **Jan, 1998**  
(c) Location: **M. D. Shannon Elementary**  
(d) Approximate # of teachers who attended: **20**

Workshop #1: (a) Title: **Utilizing Networked Computers and the Inernet**  
(b) Date: **Nov., 1997**  
(c) Location: **Phillips Preparatory School**  
(d) Approximate # of teachers who attended: **20**

Workshop #2: (a) Title: **Utilizing Networked Computers and the Internet**  
(b) Date: **Nov., 1997**  
(c) Location: **Phillips Preparatory School**  
(d) Approximate # of teachers who attended: **20**

2. If you have conducted only one workshop at this point, please provide the following information:

Workshop #1: (a) Title: **Destiny in Space**  
(b) Date: **March, 1998**  
(c) Location: **Everton High School**  
(d) Approximate # of teachers who attended: **8**

Workshop #1: (a) Title: **Teaching while Aligning Show Me Standards**  
(b) Date: **Winter, 1997**  
(c) Location: **Caruthersville High School**  
(d) Approximate # of teachers who attended: **15**

Workshop #1: (a) Title: **STEP: Enhancing Future Expectations**  
(b) Date: **Aug., 1997**  
(c) Location: **Opelousas Catholic School**  
(d) Approximate # of teachers who attended: **47**

Workshop #1: (a) Title: **Space Station**  
(b) Date: **Oct., 1997**  
(c) Location: **East St. John High School**  
(d) Approximate # of teachers who attended: **40**

Workshop #1: (a) Title: **NASA STEP Program**  
(b) Date: **Aug., 1997**  
(c) Location: **Arab Junior High School**  
(d) Approximate # of teachers who attended: **7**

Workshop #1: (a) Title: **STEP Inservice**  
(b) Date: **Oct., 1997**  
(c) Location: **Riverview Gardens Middle School**  
(d) Approximate # of teachers who attended: **8**

3. If you have **not** conducted a workshop, please indicate the reason why you have not.

**I have not conducted a Spacelink Workshop because of lack of computers in school.**

**I have been trying to assimilate as many STEP activities as possible.**

**I will do the second one in the spring.**

**Our staff development for the year was planned already. The other teachers I spoke with were somewhat interested in the program but did not want to use personal time to attend a workshop that gave no CEU's or hours in staff development.**

**The system has had only one inservice so far that I didn't know about ahead of time. I will conduct one before the end of the year and one in the summer. Conflict in teachers' schedules and lack of time have not permitted me to conduct workshops.**

Please list the tentative titles, dates, locations, and estimated number of attendees for the **two** workshops which STEP requires that you conduct to share the STEP experience and materials before the end of the academic year.

Workshop #1: (a) Title: \_\_\_\_\_  
(b) Date: \_\_\_\_\_  
(c) Location: \_\_\_\_\_  
(d) Approximate # of teachers who will attend: \_\_\_\_\_

Workshop #2: (a) Title: **Destiny in Space**  
(b) Date: ?  
(c) Location: **Greenfield High School**  
(d) Approximate # of teachers who will attend: ?

Workshop #2: (a) Title: **Spacelink**  
(b) Date: **Spring, 1998**  
(c) Location: **Caruthersville High School**  
(d) Approximate # of teachers who will attend: **15-20**

Workshop #2: (a) Title: **Spacelink: Access to the Future**  
(b) Date: **April, 1998**  
(c) Location: **Opelousas Catholic School**  
(d) Approximate # of teachers who will attend: **20**

Workshop #1: (a) Title: **Representation of Data in the Real World**  
(b) Date:  
(c) Location: **Northwest High School**  
(d) Approximate # of teachers who will attend: **4-8**

Workshop #1: (a) Title: **Spacelink**  
(b) Date: **Spring--when computer lab internetted**  
(c) Location: **East St. John High School**  
(d) Approximate # of teachers who will attend: **15 (first session)**

Workshop #2: (a) Title: **Spacelink**  
(b) Date: **Spring--when computer lab internetted**  
(c) Location: **East St. John High School**  
(d) Approximate # of teachers who will attend: **15 (second session)**

## **E. NETWORKS**

1. Have you communicated with your NASA host since the conclusion of STEP?  
Yes [6] No [11] N.R. [0]
2. Have you maintained contact with other STEP teachers? Yes [12] No [5] N.R. [0]

Please describe your most frequently-used methods of communicating with other STEP teachers, MSFC host(s), and/or STEP administrators. (e-mail, telephone, fax, U.S. mail, etc.).

**E-mail (11)**  
**Telephone (5)**  
**Fax (1)**

3. Have you teamed to conduct any workshops and/or inservice programs with one or more STEP teachers?  
Yes [1] No [15] N.R. [1]

If yes, please provide the following information:

- (a) Name of STEP partner: **Kevin Chauvin**
- (b) Title of workshop or inservice: **STEP Inservice**
- (c) Date: **August, 1997**
- (d) Location: **Morgan City Schools Central Office**
- (e) Approximate # of teachers who attended: **20**

## **F. MISCELLANEOUS**

1. Have you received media coverage (newspaper, TV, etc.) as a result of your participation in STEP? **Yes [13] No [4]**

Was the NASA video news release used locally? **Yes [8] No [9]**

Was the NASA newspaper release used locally? **Yes [10] No [4] N.R. [3]**

Please describe any other types of media coverage you have received as a result of your STEP participation. (Please enclose any available copies of news articles.)

**Article on St. Mary Parish's homepage**

**A video interview when I returned to Louisiana**

**Local newspaper article**

**Article in the local county paper**

2. Do you have access to NASA TV in your classroom via cable or satellite? **Yes [0] No [17]**

If yes, estimate how often you watch it in your classroom.

0-1 times/week [ ] 2-3 times/week [ ] 4-5 times/week [ ] 6+ times/week [ ] **N.R. [17]**

Please estimate the number of students who have viewed NASA TV in your classroom. **0**

If you can't view NASA TV from your classroom, is it available to students in your school in the library, media room, or other location in the school?

**Yes [1] No [12] N.R. [4]**

3. Do you use computers personally as a result of your technology training and STEP experience at MSFC? **Yes [15] No [2]**
4. Do you use computers in your classroom more as a result of your technology training and STEP experience at MSFC? **Yes [13] No [4]**
5. Was getting graduate credit a factor in your decision to participate in STEP? **Yes [10] No [7]**
6. What additional support could NASA/MSFC provide at this point to assist you in

translating your STEP experience to the classroom?

**Help in obtaining grants and/or equipment for upgrading technology in the classroom. Cuts in state school funding and lack of support for local tax increases have created financial difficulties in having the computers and other technology we experienced during STEP to use in the classroom.**

## **ADDITIONAL COMMENTS**

**It will take 2-3 years for me to incorporate pertinent NASA/STEP projects into my curriculum. Many of the activities and projects we accumulated takes a lot of time to assimilate. It is much more than just making copies. To teach the concepts you must understand them--inside and out. Many times there are materials that must be purchased and properly incorporated. All these take time, energy, and funding for the concepts to be taught effectively. The students and myself have enjoyed using all the resources provided by STEP. The astronomy class has really benefited and I have completely restructured the curriculum. We have also incorporated STEP stuff in our science fair projects.**

**The STEP program has improved my teaching skills. Some of the students that I had the previous year have made comments on my use of varying teaching strategies. I am sure that this is due to my STEP experience.**

**I tend to be such a procrastinator. If I had to turn in and perform a workshop for requirements for the STEP program, I believe that I would have already conducted a workshop as soon as school resumed.**

**I have incorporated graphing calculator activities more than ever after my STEP experience. My students have really enjoyed hearing about my experiences at NASA.**

**The whole experience was a gas! Glad to be able to participate.**

**(1) NASA materials and STEP ideas were used extensively for our first ever "Family Night" for K-4 students and parents. We expected maybe 40, but had over 100! The topic for the evening was "Space"--the perfect place for rockets, etc. (2) After the second presentation at school, a teacher came to me for materials for her son to look through for his science project because he wanted to do one on Space. (3) My 7th grade science class is doing journals this year in the form of "prior knowledge" entries before each chapter and "What I Learned" entries after completion of the chapter. There are three questions suggested by the textbook, and I added a related question from things I learned and/or experienced at NASA/MSFC during STEP. (4) I have also included things this year from other NASA-related programs such as Mission: Arkansas (MTDE) and GLOBE weather observations and satellite imaging. (5) The biggest difficulty I have found is lack of time after I returned, before school started, to organize the ideas and materials in a**

way to easily include them efficiently in my math and science classes. My plan for summer of 1998 is ORGANIZE. (6) Substitute teachers have loved having NASA videos that are entertaining and educational and available for use in classes in emergencies. (More classes than just mine!)

## **APPENDIX C: AREAS OF COMMITMENT**



# **1997 SUMMER TEACHER ENRICHMENT PROGRAM**

## **AREAS OF COMMITMENT**

### **REQUIRED MINIMUM COMMITMENT:**

1. Provide a computer, modem, communications software, laser printer, and dedicated telephone line in the teacher's classroom to allow communication with Spacelink, NASA's electronic information system for educator (a phone line in the classroom is not necessary if the teacher has direct access to the Internet from his/her classroom);
2. Provide release time before September 1, 1997, for the STEP participant to conduct two workshops or inservice programs for teachers in his/her school or school system;
3. Provide release time during the school year the for STEP participant to attend at least one professional math or science conference at the state, regional, or national level;
4. Provide reimbursement for travel expenses incurred in the above activities;
5. Provide at least 50 percent support (range \$50 - \$300 dependent upon distance from Huntsville, AL) for the participant to attend the weekend STEP Workshop in the spring of 1998.

### **OPTIONAL AREAS OF INCREASED COMMITMENT:**

1. Provide funding for field trips;
2. Provide a stipend for conducting two workshops/in-service programs;
3. Provide a satellite dish to facilitate reception of NASA TV (or provide television cable hook-up in the school if local cable company already provides NASA TV as part of its regular programming); or
4. Others (to be determined by the superintendent).

## **APPENDIX D: SCHEDULE OF SITE VISITS**

# **1997 SUMMER TEACHER ENRICHMENT PROGRAM**

## **SITE VISIT SCHEDULE**

### **FEBRUARY**

Cindy Moon	Corinth, MS	February 4, 1998
Jeff Gibbs	Arab, AL	February 5, 1998
Roy Whaley	Opelousas, LA	February 19, 1998
Glenn Stephens	Opelousas, LA	February 19, 1998
Gannon Dooley	Loreauville, LA	February 19, 1998
Tim Francis	Morgan City, LA	February 20, 1998
Kevin Chauvin	Morgan City, LA	February 20, 1998
Georgia Clesi	Reserve, LA	February 20, 1998

### **MARCH**

Julia Sullivan	Pearcy, AR	March 2, 1998
Cynthia Mahan	Paron, AR	March 2, 1998
Scott Nelson	Mobile, AL	March 9, 1998
Steve Maloy	Mobile, AL	March 9, 1998

## **APPENDIX E: SITE VISIT REPORTS**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
FEBRUARY 20, 1998**

**STEP TEACHER:** Kevin Chauvin

**SCHOOL:** Morgan City High School

**CITY, STATE :** Morgan City, Louisiana

**PHONE:** 504-384-1754

**PRINCIPAL:** Mrs. Mancuso

**# OF STUDENTS:** Approximately 850

**# OF FACULTY:** Approximately 50

**GRADE LEVELS OF SCHOOL:** 9-12

\*\*\*\*\*  
\*\*\*\*\*

**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mr. Chauvin had two computers, software, printer, and Internet access in his classroom. Every teacher in the school has a computer with Internet access. There is also a computer lab in which the computers all have Internet access. His school parish has their own homepage at <http://www.stmary.k12la.us/nasa.htm> which Mr. Chauvin and Tim Francis, another STEP teacher, keep updated.

Mr. Chauvin indicated that the superintendent and principal are very supportive of his efforts to share the STEP experience and implement the education activities in his school.

At the time of the site visit, Mr. Chauvin had attended one professional math conference, the LCTM in Shreveport, Louisiana, in November, 1997. He was reimbursed for his travel expenses to the conference.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES** (use of in classroom)

Mr. Chauvin indicated that he has used the STEP activity dealing with the ratio and proportion of distances and sizes of the planets. He has incorporated teaching strategies such as the learning cycle and cooperative learning into his daily lessons.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mr. Chauvin had shared the STEP materials with eight other teachers at his school and with 20 teachers in other schools in his district. He had shared the NASA education materials with four other teachers at his school and with 20 teachers in other schools in his district.

**D. WORKSHOPS (relating to STEP experience)**

At the time of the site visit, Mr. Chauvin had conducted the two required STEP workshops. One was entitled "STEP Inservice" and was conducted in August, 1997, at the school system's central office. The second workshop was entitled "NASA/STEP Inservice" and was also conducted in August at the central office.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mr. Chauvin indicated that he has not communicated with his MSFC host but has maintained contact with other STEP teachers since the conclusion of the summer program. He communicates with the other STEP teachers primarily by email and telephone. He also teamed with Tim Francis, STEP teacher from Morgan City, to do the STEP Inservice for his district in August, 1997.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

At the time of the site visit, Mr. Chauvin had received newspaper coverage, but no television coverage, as a result of his participation in STEP. He indicated that neither the MSFC newspaper release nor the video release was used by the local news media.

Mr. Chauvin and his students access Spacelink from his classroom at least once a week.

NASA TV is not available at Mr. Chauvin's school. I suggested that he petition the local cable provider to make it available as part of their local programming. I also suggested that he approach one of the school's business or corporate partners to donate a satellite dish to the school.

He indicated that he uses computers more both personally and with his students as a result of his participation in STEP. He also indicated that the graduate credit that STEP offered was a factor in his decision to participate.

**OTHER COMMENTS**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
FEBRUARY 20, 1998**

**STEP TEACHER:** Georgia Clesi

**SCHOOL:** East St. John High School

**CITY, STATE :** Reserve, Louisiana

**PHONE:** 504-536-4226

**PRINCIPAL:** Mrs. Schum

**# OF STUDENTS:** Approximately 1450

**# OF FACULTY:** Approximately 85

**GRADE LEVELS OF SCHOOL:** 9-12

\*\*\*\*\*  
\*\*\*\*\*

**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mrs. Clesi has a computer, printer, big-screen projection TV, and Internet access in her classroom. No other science teachers, except John Ellis--former STEP participant, have computers in their classrooms. The English honors class has approximately 10 computers. There is also a computer lab with approximately 30 computers, but they are not yet connected to the Internet. Teachers have to reserve times to use the computer lab.

Mrs. Clesi indicated that the superintendent and principal have been supportive of her efforts to share the STEP experience and implement the education activities in her school.

Mrs. Clesi had not attended a professional math or science conference at the time of the site visit. She did plan to attend the NSTA Convention in Las Vegas in April, 1998.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES** (use of in classroom)

Mrs. Clesi had not used any of the STEP projects with her students at the time of the site visit. She was planning to use the project "Respiration" by the end of the school year. She has incorporated teaching strategies such as the learning cycle and cooperative learning into her daily lessons.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mrs. Clesi had shared the STEP activities with 40 other teachers at her school but not with teachers in other schools in her district. She also had shared NASA education resource materials with 10 other teachers in her school.

**D. WORKSHOPS (relating to STEP experience)**

At the time of site visit, Mrs. Clesi had conducted one of the required STEP workshops at her school in October, 1997. She has plans to conduct two Spacelink workshops in the spring when the computer lab has been hooked up to the Internet.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mrs. Clesi indicated that she has faxed information and questions to her MSFC host since the conclusion of the summer program. She has not contacted any other STEP teachers.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

At the time of the site visit, Mrs. Clesi had received no newspaper coverage as a result of his participation in STEP. She was not aware if the MSFC video news release had been shown on local television.

Mrs. Clesi accesses Spacelink from her school approximately once a week.

NASA TV is not available at Mrs. Clesi's school. I suggested that she petition the local cable provider to make it available as part of their local programming. I also suggested that she approach one of the school's business or corporate partners to donate a new satellite dish to the school or to seek assistance in getting the satellite dish already in place in working order.

She indicated that she uses computers more both personally and with her students as a result of her participation in STEP. She also indicated that the graduate credit that STEP offered was not a factor in her decision to participate.

**OTHER COMMENTS**



**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
FEBRUARY 19, 1998**

**STEP TEACHER:** Gannon Dooley

**SCHOOL:** Loreauville High School

**CITY, STATE :** Loreauville, Louisiana

**PHONE:** 318-229-4701

**PRINCIPAL:** Mr. Erikson

**# OF STUDENTS:** Approximately 425

**# OF FACULTY:** 32

**GRADE LEVELS OF SCHOOL:** 7-12

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**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mr. Dooley had two computers, software, and a printer in his classroom, but because of renovation he did not have a phone line in his room at the time of the site visit. There is one computer in the library which has Internet access, but three or four other computers which are not networked. The school has a computer lab with IBM, Apple, and Phoenix computers which are used for basic computer skills. Teachers can schedule times to use the lab. Several other teachers in the English, math, history, and science departments also have computers in their classrooms.

Mr. Dooley indicated that the superintendent and principal have been very supportive of his efforts to share the STEP experience and implement the education activities in his school.

Mr. Dooley had not attended a professional math or science conference at the time of the site visit.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES** (use of in classroom)

Mr. Dooley has used the STEP density lesson, the mirrors and lenses activities, and the order of magnitudes of the solar system activities. He has incorporated teaching strategies such as the learning cycle and cooperative learning into his daily lessons.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mr. Dooley had shared the STEP activities with two other teachers at his school and with three teachers in other schools in his district. He also had shared NASA education resource materials with two other teachers in his school and with five teachers in other schools in his district.

**D. WORKSHOPS (relating to STEP experience)**

At the time of the site visit, Mr. Dooley had conducted two sessions of a workshop entitled "Summary of STEP Experience" in August, 1997. He indicated that he has not conducted a Spacelink workshop because of the lack of computers in the school.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mr. Dooley indicated that he has not communicated with his MSFC host or other STEP teachers since the conclusion of the summer program.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

At the time of the site visit, Mr. Dooley had received newspaper and TV coverage as a result of his participation in STEP. He indicated that both the MSFC video and newspaper releases were used by the local news media.

Mr. Dooley and his students access Spacelink from his classroom about once a week.

NASA TV is not available at Mr. Dooley's school. I suggested that he petition the local cable provider to make it available as part of their local programming. I also suggested that he approach one of the school's business or corporate partners to donate a satellite dish to the school.

He indicated that he uses computers more both personally and with his students as a result of his participation in STEP. He also indicated that the graduate credit that STEP offered was a factor in his decision to participate.

**OTHER COMMENTS**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
FEBRUARY 20, 1998**

**STEP TEACHER:** Tim Francis

**SCHOOL:** M. D. Shannon Elementary School

**CITY, STATE :** Morgan City, Louisiana

**PHONE:** 504-385-4970

**PRINCIPAL:** Becky Harris

**# OF STUDENTS:** Did not have a chance to ask

**# OF FACULTY:** Did not have a chance to ask

**GRADE LEVELS OF SCHOOL:** K-6

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**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mr. Francis had a computer, software, television, printer, and Internet access in his classroom. His school parish has their own homepage at <http://www.stmary.k12la.us/nasa.htm> which Mr. Francis and Kevin Chauvin, another STEP teacher, keep updated.

Mr. Francis indicated that the superintendent is very supportive, but the principal is only moderately supportive of his efforts to share the STEP experience and implement the education activities in his school.

At the time of the site visit, Mr. Francis had attended one professional math conference, the LATM in Shreveport, Louisiana, in November, 1997.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES** (use of in classroom)

Mr. Francis has used a variety of STEP-related activities with his students. The activities demonstrated Bernouli's Principle and several types of rockets, which his students built and launched. He also used the sidewalk chalk activity where his students computed the relative size and distance of the planets from the sun and then drew them with chalk on the concrete. He used the impact crater activity and the space station model built from two-liter cola

bottles. He has incorporated teaching strategies such as the learning cycle and cooperative learning into his daily lessons.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mr. Francis had shared the STEP activities and the NASA education resource materials with 20 other teachers at his school and with 20 teachers in other schools in his district.

**D. WORKSHOPS (relating to STEP experience)**

At the time of the site visit, Mr. Francis had conducted a workshop entitled "STEP Inservice" in August, 1997, at the school system's central office. He also presented a "STEP Inservice" to the faculty of his school in January, 1998.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mr. Francis indicated that he has communicated via email with his MSFC host and other STEP teachers since the conclusion of the summer program. He also teamed with Kevin Chauvin, STEP teacher from Morgan City, to do the STEP Inservice for his district in August, 1997.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

At the time of the site visit, Mr. Francis had received newspaper coverage, but no television coverage, as a result of his participation in STEP. He indicated that the MSFC newspaper release was used by the local newspaper.

Mr. Francis and his students access Spacelink from his classroom two to three times a week.

NASA TV is not available at Mr. Francis's school. I suggested that he petition the local cable provider to make it available as part of their local programming. I also suggested that he approach one of the school's business or corporate partners to donate a satellite dish to the school.

He indicated that he uses computers more both personally and with his students as a result of his participation in STEP. He also indicated that the graduate credit that STEP offered was not a factor in his decision to participate.

**OTHER COMMENTS**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
FEBRUARY 5, 1998**

**STEP TEACHER:** Jeff Gibbs

**SCHOOL:** Arab Junior High School

**CITY, STATE :** Arab, Alabama

**PHONE:** 256-586-6074

**PRINCIPAL:** Mr. Wharton

**# OF STUDENTS:** Approximately 550

**# OF FACULTY:** Approximately 35

**GRADE LEVELS OF SCHOOL:** 6-8

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**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mr. Gibbs has four computers, a projector to show videos, a Laser printer, and a Deskjet color printer in his classroom. The computers will soon be networked to the Internet--the cables have been run and will be hooked up by the end of February. There is also a computer lab with 22 computers which are used for keyboarding, computer applications, and supercomputing, and all science teachers have two Gateway computers in their classrooms.

Mr. Gibbs indicated that the superintendent has shown average support of his efforts to share the STEP experience and implement the education activities in his school. Mr. Gibbs said that the principal has shown less than average support.

Mr. Gibbs had not attended a professional math or science conference at the time of the site visit and did not indicate whether or not he would be reimbursed for expenses to such conferences.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES** (use of in classroom)

Mr. Gibbs had used the STEP project and video on Rocketry for three weeks with his students. He used the textbook materials to supplement the project. He said his students

loved building and launching the rockets! He has also used teaching strategies such as the learning cycle and cooperative learning with his students.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mr. Gibbs had shared some of the STEP activities and NASA education resources with five other teachers at his school but not with teachers in other schools in his district. He also had shared NASA education resource materials with a friend who teaches in Decatur, Alabama.

**D. WORKSHOPS (relating to STEP experience)**

At the time of site visit, Mr. Gibbs had conducted one of the required STEP workshops at his school in August, 1997. He indicated that the principal had not responded to his request to do a spring workshop, so he would try to schedule one for August, 1998.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mr. Gibbs did not indicate that he had maintained contact with his MSFC host or other STEP teachers. Mr. Gibbs has not invited his host to his school to address his students, but he did say that he might invite some of the MSFC photo lab staff to come and talk to his students.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

Mr. Gibbs had received no newspaper coverage as a result of his participation in STEP. He was told that the MSFC video news release was used by a local TV station, but Jeff did not see it. The MSFC news release was not used in the local paper.

Mr. Gibbs had not accessed Spacelink from his school at the time of the site visit.

NASA TV is not available at Mr. Gibbs's school. I suggested that he petition the local cable provider to make it available as part of their local programming. I also suggested that he approach one of the school's business or corporate partners to donate a satellite dish to the school.

He indicated that he uses computers more both personally and with his students as a result of his participation in STEP. He also indicated that the graduate credit that STEP offered was a factor in his decision to participate.

**OTHER COMMENTS**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
MARCH 2, 1998**

**STEP TEACHER:** Cynthia Mahan

**SCHOOL:** Paron High School

**CITY, STATE :** Paron, Arkansas

**PHONE:** 501-594-5622

**PRINCIPAL:** Mr. George Lawson

**# OF STUDENTS:** Approximately 120

**# OF FACULTY:** Approximately 14

**GRADE LEVELS OF SCHOOL:** 7-12

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**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mrs. Mahan had a computer, software, printer, and Internet access in her classroom. Every math or science teacher in the school has a computer. The entire school, in fact, all the schools in the entire state of Arkansas will be Internet accessible by the fall of 1998 through a state-wide initiative called APSCAN (Arkansas Public School Computer Access Network). There are approximately 15 computers in a business computer lab and 24 computers in another lab which is available to elementary through eighth grade students for tutorials, etc.

Mrs. Mahan indicated that the superintendent and principal are very supportive of her efforts to share the STEP experience and implement the education activities in her school.

At the time of the site visit, Mrs. Mahan had attended one professional conference entitled "Joint Conference on Teaching: Universal Connections in Math, Science, and Social Studies" in October, 1997, in Little Rock, Arkansas. She was not reimbursed for her travel expenses to the conference because she did not request reimbursement.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES (use of in classroom)**

Mrs. Mahan indicated that she has used the STEP activities "You Are Here" and "Image Is Everything" with her students. She plans to use the STEP projects on density and light and sound before school is out.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mrs. Mahan had shared the STEP materials with four other teachers at her school, with six teachers in other schools in her district, and with two teachers outside her district. She had shared the NASA education materials with 12 other teachers at her school, with 10 teachers in other schools in her district, and five teachers outside her district.

**D. WORKSHOPS (relating to STEP experience)**

At the time of the site visit, Mrs. Mahan had conducted the two required STEP workshops. One was entitled "STEP Into NASA" and was conducted in August, 1997, at her school. The second workshop was entitled "How Can NASA and I Help Your Science and Math Classes?" and was conducted in February at the school.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mrs. Mahan indicated that she has communicated with her MSFC host and has maintained contact with one or two other STEP teachers since the conclusion of the summer program. She has communicated with them primarily by email.

She and another STEP teacher, Julia Sullivan, had applied to do a workshop together at the October state meeting, but they were accidentally left off the schedule.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

At the time of the site visit, Mrs. Mahan had received newspaper coverage, but no television coverage, as a result of her participation in STEP. She indicated that several newspaper articles were printed in the local newspaper.

Mrs. Mahan was using Spacelink four to five times per week from both school and home.

NASA TV is not available at Mrs. Mahan's school. I suggested that she petition the local cable provider to make it available as part of their local programming. I also suggested that she approach one of the school's business or corporate partners to assist with repairing the school's satellite system.

She indicated that she uses computers more both personally and with her students as a result of her participation in STEP. She also indicated that the graduate credit that STEP offered was not a factor in her decision to participate.

**OTHER COMMENTS**



**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
MARCH 9, 1998**

**STEP TEACHER:** Stephen Maloy

**SCHOOL:** Phillips Preparatory School

**CITY, STATE :** Mobile, Alabama

**PHONE:** 334-473-9061

**PRINCIPAL:** Dr. Carolyn Taylor

**# OF STUDENTS:** Approximately 750

**# OF FACULTY:** Approximately 40

**GRADE LEVELS OF SCHOOL:** 6-8

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**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mr. Maloy has a new computer, software, printer, and Internet access in his classroom for his personal use. He has approximately 25 other computers, four of which have Internet access, for student use in the keyboarding/computer skills course that he teaches. Mr. Maloy set up a mini-lab in the library. The lab has 12 computers, all with Internet access, which students use during the year to learn how to use the Internet. Most other teachers have at least one computer. All science teachers have computers with Internet access. All teachers in the school will have Internet access by the beginning of the new school year.

Mr. Maloy indicated that the superintendent and the principal have been very supportive of his efforts to share the STEP experience and implement the education activities in his school.

At the time of the site visit, Mr. Maloy had not attended a professional math or science conference. He has been battling a critical illness for most of the school year.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES** (use of in classroom)

Mr. Maloy did not indicate that he had used any of the STEP activities at the time of the site visit.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mr. Maloy had shared the STEP materials with 40 other teachers at his school. He had shared the NASA education resources with 6-10 other teachers in his school.

**D. WORKSHOPS (relating to STEP experience)**

At the time of the site visit, Mr. Maloy had conducted the two required STEP workshops. The workshop was entitled "Utilizing Networked Computers and the Internet" and two sessions were conducted in November, 1997, at his school.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mr. Maloy indicated that he has not communicated with his MSFC host but has maintained contact with a few other STEP teachers since the conclusion of the summer program. He has communicated with them primarily by email.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

At the time of the site visit, Mr. Maloy had received newspaper and television coverage as a result of his participation in STEP. He received live TV coverage from Marshall TV as part of a live uplink to his local TV station while he was a participant in STEP. He also indicated that the MSFC news release was used in his local newspaper.

Mr. Maloy indicated that he and his students access Spacelink at least once a week.

NASA TV is not available at Mr. Maloy's school. I suggested that he petition the local cable provider to make it available as part of their local programming. I also suggested that he approach one of the school's business or corporate partners to donate a satellite dish to the school.

He indicated that he uses computers more personally as a result of his participation in STEP. He already used computers with his students. He also indicated that the graduate credit that STEP offered was a factor in his decision to participate.

**OTHER COMMENTS**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
FEBRUARY 4, 1998**

**STEP TEACHER:** Cindy Moon

**SCHOOL:** Biggersville High School

**CITY, STATE :** Corinth, Mississippi

**PHONE:** 601-286-3542

**PRINCIPAL:** Dr. Goolsby

**# OF STUDENTS:** Approximately 500

**# OF FACULTY:** Not sure--maybe 30-35

**GRADE LEVELS OF SCHOOL:** K-12

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**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Ms. Moon has a Gateway 2000 computer and a Hewlett Packard Laser Printer in her classroom. The computer is networked to the Internet, but email had not been set up at the time of the visit. She was expecting to get the email set up in a couple of months. Ms. Moon indicated that the principal and superintendent have been very supportive of her efforts to share the STEP experience and implement the education activities in her school. All the English, Math, and Science teachers have computers. In addition, 10 computers are set up in a lab for Tech Prep, but a teacher has to make an appointment to use them. Ms. Moon had not been to a professional math or science conference, but had attended two conferences on Tech Prep Biology. She was not reimbursed for the expenses incurred in attending those two conferences.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES** (use of in classroom)

Ms. Moon indicated that she has used the STEP density activities and the Reflections of Science in her classroom. All 52 of her students participated in the activities. She has also used teaching strategies such as the learning cycle and cooperative learning with her students.

**C. DISSEMINATION OF MATERIALS** (STEP Activities and NASA Education Resources)

Ms. Moon had not shared any of the STEP activities with other teachers at the time of the site visit. She had shared NASA education resource materials, especially videos and posters, with four other teachers in her school. She also shared a number of web sites with other teachers.

**D. WORKSHOPS** (relating to STEP experience)

At the time of site visit, Ms. Moon had not done any of the required STEP workshops in her school or district. She indicated the reason was that the staff development for the year was planned already. She said the other teachers with whom she spoke were somewhat interested in the program, but did not want to use personal time to attend a workshop that gave no CEU's or hours in staff development.

**E. NETWORKS** (with STEP teachers, MSFC host, STEP administrators, others)

Ms. Moon indicated that she has maintained contact with several of the other STEP teachers, primarily by telephone and email from her home.

**F. MISCELLANEOUS** (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)

Ms. Moon had received media coverage as a result of her participation in STEP. The MSFC news release was used in the local paper, but the video news release prepared by MSFC was not.

NASA TV is not available at Ms. Moon's school. I suggested that she petition the local cable provider to make it available as part of their local programming. I also suggested that she approach one of the school's business or corporate partners to donate a satellite dish to the school.

She indicated that she definitely uses computers more both personally and with her students as a result of her participation in STEP. She also indicated that the graduate credit that STEP offered was a factor in her decision to participate.

**OTHER COMMENTS**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
MARCH 9, 1998**

**STEP TEACHER:** Scott Nelson

**SCHOOL:** Baker High School

**CITY, STATE :** Mobile, Alabama

**PHONE:** 334-633-0330

**PRINCIPAL:** John Sklopan

**# OF STUDENTS:** Approximately 2100

**# OF FACULTY:** Approximately 80

**GRADE LEVELS OF SCHOOL:** 7-12

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**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mr. Nelson has a computer, software, printer, and Internet access in his classroom. He has to pay \$10 per month from classroom money for the Internet provider. He has a second computer without Internet access for student use. All science teachers have at least one computer with Internet access. There is a computer lab for the high school students who enroll in a computer course using Internet activities, projects, etc. There is no lab for the seventh or eighth grades.

Mr. Nelson indicated that the superintendent had shown little support and the principal had provided only moderate support for his efforts to share the STEP experience and implement the education activities in his school.

At the time of the site visit, Mr. Nelson had attended a professional science conference, the Alabama Science Teachers Association meeting, in October, 1997, in Birmingham, Alabama. He was reimbursed for his travel expenses to the conference. At the time of the site visit, he was having difficulty getting the principal and superintendent to honor their commitment to provide half of his travel expenses to attend the STEP Workshop scheduled for the latter part of March, 1998, in Huntsville, Alabama.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES (use of in classroom)**

Mr. Nelson indicated that he has used the STEP activities on rockets and the STEP project "Image is Everything" with all 200 of his students.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mr. Nelson had shared the STEP materials and the NASA education resource materials with 10 other teachers at his school and with five teachers in other schools in his district.

**D. WORKSHOPS (relating to STEP experience)**

At the time of the site visit, Mr. Nelson had not conducted the two required STEP workshops. He plans to conduct one workshop before the end of the year and another one in the summer before school starts.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mr. Nelson indicated that he has not communicated with his MSFC host but has maintained contact with a few other STEP teachers since the conclusion of the summer program. He has communicated with them primarily by email.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

At the time of the site visit, Mr. Nelson had received no newspaper coverage as a result of his participation in STEP. He received live TV coverage from Marshall TV as part of a live uplink to his local TV station while he was a participant in STEP.

NASA TV is not available at Mr. Nelson's school. I suggested that he petition the local cable provider to make it available as part of their local programming. I also suggested that he approach one of the school's business or corporate partners to donate a satellite dish to the school.

He indicated that he does not use computers more both personally and with his students as a result of his participation in STEP--he already used them. He also indicated that the graduate credit that STEP offered was not a factor in his decision to participate.

**OTHER COMMENTS**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
FEBRUARY 19, 1998**

**STEP TEACHER:** Glenn Stephens

**SCHOOL:** Northwest High School

**CITY, STATE :** Opelousas, Louisiana

**PHONE:** 318-942-1303

**PRINCIPAL:** Mr. Cassimere

**# OF STUDENTS:** Approximately 95

**# OF FACULTY:** Approximately 35

**GRADE LEVELS OF SCHOOL:** 9-12

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**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mr. Stephens has a computer, software, printer, TV/computer converter, and 27" TV; but Internet access was not available to him in his classroom at the time of the site visit. He indicated that all the schools in the system would have Internet access by the end of the school year. The parish will be receiving approximately \$600,000 for technology. Mr. Stephens is the only teacher now with a new computer. Soon each department will have at least one new computer hooked up to the parish network. Next year most classes will have one computer networked to the library. There are no computers in the library at this time.

Mr. Stephens indicated that the superintendent and principal have been very supportive of his efforts to share the STEP experience and implement the education activities in his school. He has also received much support from the Math Supervisor, Michael Guidry.

At the time of the site visit, Mr. Stephens had attended one professional conference, the LATM Regional Mathematics Conference in Alexandria, Louisiana. He was reimbursed for his travel expenses and expected to be reimbursed for travel expenses to the NCTM National Conference in Washington, D.C.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES (use of in classroom)**

Mr. Stephens has used the STEP projects dealing with trigonometry activities and fractals with his students at the time of the site visit. He has incorporated teaching strategies such as the learning cycle and cooperative learning into his daily lessons. He uses the "discovery approach" often with his students.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mr. Stephens had shared the STEP activities and NASA education resources with two other teachers at his school and with one teacher in another school in the district.

**D. WORKSHOPS (relating to STEP experience)**

At the time of site visit, Mr. Stephens had not conducted any of the required STEP workshops. He said that conflicts in teachers' schedules and lack of time have not permitted him to conduct workshops.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mr. Stephens indicated that he has not talked with his MSFC host or other STEP teachers since the conclusion of the STEP program.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

Mr. Stephens had received newspaper and TV coverage as a result of his participation in STEP. He said the MSFC video news release had been shown on local television, and the local newspaper had published the MSFC STEP news release.

Mr. Stephens had not accessed Spacelink from his school at the time of the site visit.

NASA TV is not available at Mr. Stephens' school. I suggested that he petition the local cable provider to make it available as part of their local programming. I also suggested that he approach one of the school's business or corporate partners to donate a satellite dish to the school.

He indicated that he uses computers more both personally and with his students as a result of his participation in STEP. He also indicated that the graduate credit that STEP offered was a factor in his decision to participate.

**OTHER COMMENTS**



**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
MARCH 2, 1998**

**STEP TEACHER:** Julia Sullivan

**SCHOOL:** Lake Hamilton Junior High School

**CITY, STATE :** Percy, Arkansas

**PHONE:** 501-767-2731

**PRINCIPAL:** Mr. Bud Walston

**# OF STUDENTS:** Approximately 600

**# OF FACULTY:** Approximately 40

**GRADE LEVELS OF SCHOOL:** 8-9

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**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Ms. Sullivan had a computer, software, and Internet access in her classroom. She did not have a printer, although she had requested one several times from her principal. She shares a printer located in a conference room with other teachers. She also has difficulty accessing the Internet from her classroom because of the number of users on the school system's network. Every teacher has a computer that is networked to a local server. There is also a computer lab with approximately 30 computers used as a resource lab for all subject areas.

Ms. Sullivan indicated that the superintendent and principal are very supportive of her efforts to share the STEP experience and implement the education activities in her school. She is having difficulty, however, obtaining a printer for her classroom.

At the time of the site visit, Ms. Sullivan had not attended a professional math or science conference. She plans to attend a state conference in Arkadelphia, Arkansas in April, 1998. She assumes she will be reimbursed for her travel expenses to the conference.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES (use of in classroom)**

Ms. Sullivan indicated that she has used the STEP activity "You Are Here" with all 130 of her students.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Ms. Sullivan had shared the STEP materials and the NASA education resource materials with five other teachers at her school, but she had not shared any materials with teachers in other schools in her district or outside her district.

**D. WORKSHOPS (relating to STEP experience)**

At the time of the site visit, Ms. Sullivan had conducted the two required STEP workshops. One was entitled "My NASA Experience" and was conducted in August, 1997, at her school. The second workshop was entitled "Using NASA Resources" and was also conducted in August at her school.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Ms. Sullivan indicated that she has communicated with her MSFC host and has maintained contact with a few other STEP teachers since the conclusion of the summer program. She has communicated with them primarily by email and telephone.

She and another STEP teacher, Cynthia Mahan, had applied to do a workshop together at the October state meeting, but they were accidentally left off the schedule.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

At the time of the site visit, Ms. Sullivan had received no newspaper or television coverage as a result of her participation in STEP. She said that she didn't know if news articles were printed during the summer while she was in Huntsville participating in STEP.

Ms. Sullivan has accessed Spacelink at least once a week from her classroom.

NASA TV is not available at Ms. Sullivan's school. I suggested that she petition the local cable provider to make it available as part of their local programming. I also suggested that she approach one of the school's business or corporate partners to donate a satellite dish to the school.

She indicated that she uses computers more both personally and with her students as a result of her participation in STEP. She said she also uses graphing calculators more than ever as a result of her STEP experience. She also indicated that the graduate credit that STEP offered was a factor in her decision to participate.

**OTHER COMMENTS**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
SITE VISIT  
FEBRUARY 19, 1998**

**STEP TEACHER:** Roy Whaley

**SCHOOL:** Opelousas Catholic School

**CITY, STATE :** Opelousas, Louisiana

**PHONE:** 318-942-5404

**PRINCIPAL:** Mrs. Domengeaux

**# OF STUDENTS:** Approximately 815

**# OF FACULTY:** ?

**GRADE LEVELS OF SCHOOL:** Pre-School through 12

\*\*\*\*\*  
\*\*\*\*\*

**A. COMMITMENT OF SUPPORT BY SCHOOL ADMINISTRATION** (provision of computer equipment, travel reimbursement, release time to conduct workshops and attend conferences, etc.)

Mr. Whaley did not have a computer, printer, software, or Internet access in his classroom at the time of the site visit. The school was due to receive 12 computers by March 1. The computers would be networked and have Internet access. Ten of the computers will be in the library and teachers can use them on a rotating basis. Mr. Whaley will receive one of the computers for his classroom because of his participation in STEP. The school has access to a traveling computer lab provided by St. Landry Parish. The lab services the school twice a week to let students work on computer lessons.

Mr. Whaley indicated that the superintendent and principal have been very supportive of his efforts to share the STEP experience and implement the education activities in his school.

Mr. Whaley had not attended a professional math or science conference at the time of the site visit. He plans to attend the conference "Algebra for All" in April, 1998, in Baton Rouge, Louisiana.

**B. STEP EDUCATION ACTIVITIES and TEACHING STRATEGIES (use of in classroom)**

Mr. Whaley had used the STEP projects "Image is Everything" and "Countdown to Learning" with his students at the time of the site visit. He has incorporated teaching strategies such as the learning cycle and cooperative learning into his daily lessons.

**C. DISSEMINATION OF MATERIALS (STEP Activities and NASA Education Resources)**

Mr. Whaley had shared the STEP activities with six other teachers at his school but not with teachers in other schools in his district. He also had shared NASA education resource materials with six other teachers in his school.

**D. WORKSHOPS (relating to STEP experience)**

At the time of the site visit, Mr. Whaley had conducted one workshop entitled "Enhancing Future Expectations" in August, 1997. He has plans to conduct the second workshop entitled "Spacelink: Access to the Future" in April, 1998.

**E. NETWORKS (with STEP teachers, MSFC host, STEP administrators, others)**

Mr. Whaley indicated that he has not communicated with his MSFC host since the conclusion of the summer program; however, he has contacted several STEP teachers by telephone.

**F. MISCELLANEOUS (local media coverage of you, extent of your use of computers, use of NASA TV and SPACELINK, etc.)**

At the time of the site visit, Mr. Whaley had received newspaper and TV coverage as a result of his participation in STEP. He indicated that both the MSFC video and newspaper releases were used by the local news media.

Mr. Whaley has not accessed Spacelink from his school, because he has not had computer equipment in his classroom.

NASA TV is not available at Mr. Whaley's school. I suggested that he petition the local cable provider to make it available as part of their local programming. I also suggested that he approach one of the school's business or corporate partners to donate a satellite dish to the school.

He indicated that he uses computers more both personally and with his students as a result of his participation in STEP. He also indicated that the graduate credit that STEP offered was a factor in his decision to participate.

**OTHER COMMENTS**

## **APPENDIX F: ACADEMIC-YEAR WORKSHOP AGENDA**

# 1997 SUMMER TEACHER ENRICHMENT PROGRAM

## ACADEMIC-YEAR WORKSHOP

MARCH 20-21, 1998

### FRIDAY, MARCH 20, UAH TECHNOLOGY HALL, CONFERENCE ROOM N276

1:00 p.m.	<ul style="list-style-type: none"><li>•Welcome</li><li>•STEP Workshop Evaluation and STEP Verification of Commitment Forms</li><li>•1997 STEP Revisited</li></ul>
1:30 - 2:30	<i>UAH Computer Lab N204</i> <ul style="list-style-type: none"><li>•Spacelink Update: Jeff Ehmen and Jeff Cobb</li><li>•Open Discussion: The Uses of Spacelink by STEP Teachers</li></ul>
2:30	Break
3:00	Tours of UAH Engineering Labs
5:00	Closing Remarks
6:45	Social Hour (Cash Bar) Marriott Hotel - Atlantis Room
7:30	Dinner
8:30	Dinner Speaker - Dr. Tom Koshut "Gamma Ray Bursts: Cosmic Neighbors Exiled to the Edge of the Universe"
9:30	Hospitality Suite - Room 201 Executive Lodge

# **1997 SUMMER TEACHER ENRICHMENT PROGRAM**

## **ACADEMIC-YEAR WORKSHOP**

**MARCH 20-21, 1998**

### **SATURDAY, MARCH 21, EXECUTIVE LODGE BURRITT ROOM**

9:00 a.m.	Opening Remarks
9:05	Small Group Activity Topic: "Ways to Use the NASA/STEP Experience with Students"
10:05	Group Reports
10:35	Break
10:45	Presentations: Tim Francis, Cindy Mahan, Scott Nelson
11:45	Catered Lunch - The Mill
12:45	Small Group Activity: "Workshops/Inservice Programs Presented by STEP Participants"
1:45	Group Reports
2:15	Break
2:30	Open Discussion: • Improving Networking
3:00	Collect Workshop Evaluations Closing Remarks
	Dinner on Your Own
	Hospitality Suite Executive Lodge

**APPENDIX G: ACADEMIC-YEAR WORKSHOP  
EVALUATION RESPONSES**



# 1997 SUMMER TEACHER ENRICHMENT PROGRAM

## ACADEMIC-YEAR WORKSHOP EVALUATION

MARCH 20-21, 1998

Please rate the following aspects of the workshop by marking only one number in each category:

### FRIDAY, MARCH 20, 1998

		<u>Poor</u>	<u>Fair</u>	<u>Good</u>	<u>Very Good</u>	<u>Excellent</u>	<u>NR*</u>	<u>Avg.</u>
1.	Visit with NASA Host <u>6</u> Did not visit with NASA Host (please explain on back of sheet.)	1	2	3	4	5		4.83
2.	1997 STEP Revisited	1	2	3	4	5	1	4.73
3.	Spacelink Update	1	2	3	4	5		4.50
4.	Tours of UAH Engineering Labs	1	2	3	4	5		4.25
5.	Dinner at the Marriott	1	2	3	4	5		4.42
6.	Dinner Speaker - Tom Koshut	1	2	3	4	5		4.75

\*NR--No Response

**SATURDAY, MARCH 21, 1998**

					Very		<u>NR*</u>	<u>Avrg.</u>
		<u>Poor</u>	<u>Fair</u>	<u>Good</u>	<u>Good</u>	<u>Excellent</u>		
1.	Group Activity: "Ways to Use the NASA/STEP Experience with Students"	1	2	3	4	5		4.67
2.	Group Reports	1	2	3	4	5		4.92
3.	Presentations by STEP Participants	1	2	3	4	5		4.83
4.	Group Activity: "Workshops/Inservice Programs Presented by STEP Participants"	1	2	3	4	5		4.75
5.	Group Reports	1	2	3	4	5		4.83
6.	Open Discussion: Improving Networking	1	2	3	4	5	1	4.73
7.	Interactions With Other Teachers at Workshop	1	2	3	4	5		5.00
8.	Ideas on New Ways to Use the STEP Education Activities	1	2	3	4	5		4.50
9.	Ideas on New Ways to Use the NASA Education Resources	1	2	3	4	5		4.50
10.	Ideas for STEP Workshops/Inservice Programs	1	2	3	4	5	1	4.45
11.	Workshop Format	1	2	3	4	5		4.75

**ADDITIONAL COMMENTS:**

1. Martha, thank you for all your time and effort. You have added a very nice personal touch.
2. Very wonderful program. Thanks again for allowing me to participate.
3. Was unable to get in touch with host.
4. A great opportunity to reinforce the summer--amazing what you don't remember.
5. The workshop was needed to re-energize, share ideas and renew communications.
6. Had time to return to TRC for "pieces" we thought we had that are lost (ex. videos). Enjoyed visiting with Martha, Dr. Karr, and other teachers.

\*NR--No Response

**APPENDIX H: ACADEMIC-YEAR WORKSHOP  
SMALL GROUP AND OPEN  
DISCUSSIONS SUMMARIES**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
ACADEMIC-YEAR WORKSHOP  
MARCH 20-21, 1998**

**Group Activity Reports**

**Small Group Activity: "Ways to Use the NASA/STEP Experience with Students"**

**GROUP 1**

- |                    |    |
|--------------------|----|
| 1. Scott Williams* | MO |
| 2. Ron Hull        | MO |
| 3. Kevin Chauvin   | LA |
| 4. Cindy Mahan     | AR |

\*Group Chairperson

- I. Technology
  - A. Internet/Spacelink/www.
  - B. Graphing calculators
  - C. CBL's
- II. Team Teaching
  - A. Math
  - B. Science
  - C. English
  - D. Business (data processing)
- III. STEP Activities/Lessons
  - A. Mirrors
  - B. Rocketry
  - C. Solar System
  - D. Microgravity demos.
  - E. Cartesion divers
  - F. Tactile-kinesthetics
  - G. Science fair projects
- IV. Visual
  - A. Posters/videos
  - B. Photographs
  - C. Lithographs
  - D. Screen Savers/wallpaper/web pages
- V. Journal Writing

## GROUP II

1. Tim Blankenship*	MO
2. Georgia Clesi	LA
3. Scott Nelson	AL
4. Tim Francis	LA

\*Group Chairperson

1. Lithographs/Posters
2. Astroplants
3. Rockets
  - A. Alka Seltzer
  - B. Bottle rockets
  - C. Match
  - D. Seltzer etc., etc.
  - E. Balloon car
4. Spacelink
5. Videotapes
6. Remote sensing
7. Density columns
8. Mirror activity
9. Bernoulli activities
10. Sidewalk chalk
11. Water Pipe (simulates wind tunnel)
12. Impact craters
13. Distance to moon
14. Regolith formation
15. Lunar samples
16. Internet chats (NASA)
17. Videos/slides/pix of activities
18. Web pages
19. Project "Star Shine"
20. CD Roms
21. Science fair projects
22. SAREX (communications with Shuttle)

### **GROUP 3**

- |                   |    |
|-------------------|----|
| 1. Ray Hudock*    | MO |
| 2. Roy Whaley     | LA |
| 3. Julia Sullivan | AR |
| 4. Cindy Moon     | MS |

\*Group Chairperson

1. Collaborative Groups
2. "Countdown to Learning"
3. Topography activity
4. You Are Here
  - A. Data, Charts, Graphs
  - B. Computer Activities - "Brochures vs. Posters"
  - C. Net Searches
5. Density Activity
6. Mirror Activity
7. Environmental Activity - "EPA" search
8. Rocket and Roll
9. Interdisciplinary
10. Graphing Calculators

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
ACADEMIC-YEAR WORKSHOP  
MARCH 21, 1998**

**GROUP ACTIVITY REPORTS**

**Small Group Activity: "Workshops /Inservice Programs Presented by STEP Participants"**

**GROUP 1**

- |                    |    |
|--------------------|----|
| 1. Julia Sullivan* | AR |
| 2. Tim Blankenship | MO |
| 3. Scott Williams  | MO |
| 4. Scott Nelson    | AL |

\*Group Chairperson

- A. Scott Williams:    Spacelink - for school faculty  
                             Demonstrations - for school departments
- B. Scott Nelson:     Spacelink - for school faculty  
                             Demonstrations - County middle school teachers
- C. Tim Blankenship:   Rockets - school-wide  
                             Rockets - different school site
- D. Julia Sullivan:    Spacelink - math/science departments  
                             NASA Experienceactivities - math/science departments

**GROUP 2**

- |                  |    |
|------------------|----|
| 1. Cindy Moon*   | MS |
| 2. Ron Hull      | MO |
| 3. Roy Whaley    | LA |
| 4. Kevin Chauvin | LA |

\*Group Chairperson

1.    Earth-Moon relationship activity
2.    Handouts
3.    Count Down to Learning
4.    Spacelink

### **GROUP 3**

- |                   |    |
|-------------------|----|
| 1. Georgia Clesi* | LA |
| 2. Cindy Mahan    | AR |
| 3. Ray Hudock     | MO |
| 4. Tim Francis    | LA |

#### **\*Group Chairperson**

1. Cindy's parent/pizza party (Cindy Mahan)
2. Overhead project to HS that work (Georgia)
3. Math workshop for secondary teachers in St. Mary Parish (Tim/Kevin)
4. Internet sites/materials (Cindy)
5. Presentation to science department (Ray)
6. Presentation for school (time was cut short) (Tim)
7. Spacelink/Internet inservice for East St. John High School (Georgia)



**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
ACADEMIC-YEAR WORKSHOP  
MARCH 20-21, 1998**

**OPEN DISCUSSION**

**Improving Networking:**

1. Complete the construction of the STEP web page.
  - A. Make it interactive so that a teacher can make comments, for example.
  - B. Put in links to teachers' home pages.
  - C. Web page should be revised and updated periodically. Perhaps the University of Alabama in Huntsville should take ownership of the web page from the University of Alabama and keep it updated.
  - D. Perhaps the STEP web page could be linked in some way to Spacelink and in turn, linked to the teachers' home pages. The teachers would be responsible for keeping activities posted, updated, etc., on their own home pages.
2. Send out monthly messages of interest to all teachers. Could possibly use Microsoft Outlook email and Internet Explorer 4.0, which can be downloaded free of charge.

**APPENDIX I: VERIFICATION OF ADMINISTRATIVE  
SUPPORT AND PARTICIPANTS'  
VERIFICATION OF COMMITMENT  
RESPONSES**

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
VERIFICATION OF ADMINISTRATIVE SUPPORT**

AREAS OF MINIMUM COMMITMENT	I REQUESTED	I RECEIVED	I WILL RECEIVE (DATE)	SUPPORT REFUSED (ATTACH EXPLANATION)
1 Release time to conduct two workshops or inservice programs in your school and/or district	14	11	Responses: 3 (comments attached)	
2 Release time to attend at least one professional math or science conference (indicate state, regional, or national math or science)	14	10	Responses: 4 (comments attached)	
3 Reimbursement for travel expenses incurred to conduct workshops or attend professional conference(s)	12	9	Responses: 3 (comments attached)	
4 Computer, modem, communications software, telephone line (or Internet access) in classroom to provide access to Spacelink	13*	9	Responses: 5 (comments attached)	
5 Provision of at least 50 percent support to attend the STEP Workshop on March 20-21, 1998, in Huntsville, AL.	13	8	Responses: 5 (comments attached)	Responses: 1 (comments attached)
<b>AREAS OF OPTIONAL COMMITMENT</b>	<b>I REQUESTED</b>	<b>I RECEIVED</b>	<b>I WILL RECEIVE (DATE)</b>	<b>SUPPORT REFUSED (ATTACH EXPLANATION)</b>
1 Provision of funding for field trips related to STEP activities	1	1		
2 Provision of stipend for conducting two workshops and/or inservice programs	2	2		
3 Provision of satellite dish to facilitate reception of NASA Select	1		Responses: 1 (comments attached)	
4 Other (Please specify)				
<b>ADDITIONAL COMMENTS:</b>				
(Comments Attached)				

Teacher Signature

dent or Principal Signature

Date

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
VERIFICATION OF ADMINISTRATIVE SUPPORT**

QUESTION #	COMMENTS	
	PARTICIPANT WILL RECEIVE (DATE)	SUPPORT REFUSED (ATTACH EXPLANATION)
1	May 1998; August 10-11, 1998; ?	
2	April 15-16, 1998; fall 1998; April 16, 1998; fall 1998.	
3	April 15-16, 1998; April 16, 1998; fall 1998.	
4	April/May for Internet; April 1998; April 1998; ?; *already in place.	
5	April 15, 1998; upon return; ?; April 20; March 30.	Did not attend due to illness.
	<b>AREAS OF OPTIONAL COMMITMENT</b>	
3	Not sure when I will receive satellite dish.	
<b>ADDITIONAL COMMENTS:</b>  Computer has been provided; the connection is on hold because of renovation. Inservice at my school was cut short; qualified as inservice, but really wasn't administratively supported. Everton Schools have been recently awarded a \$200,000 Technology Literacy Challenge Fund Grant. Part of the grant will be used to equip a 25 station computer lab with direct internet access. Work has already begun on the lab which is expected to be operational before the end of the present school year. All high school teachers and their classes will have access to the new lab.		

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
VERIFICATION OF PARTICIPANT'S COMMITMENT**

COMPLETION OF STEP REQUIREMENTS BY PARTICIPANT		YES	NO*
1	Provided "Action Plan" to STEP Administrators	14	
2	Provided "Action Plan" to Principal	13	1
3	Conducted two workshops (relating to STEP experience) at school or in school district	11	3
4	Provided completed "Academic-Year Questionnaire" to STEP Administrators	14	
5	Attended at least one state, regional, or national math or science conference	12	2

\*If participant's response is "NO" to any of the above STEP requirements, please attach either the document needed by STEP administrators or a note indicating the expected date of completion of the requirements.

**ADDITIONAL COMMENTS:**

(Comments Attached)

<b>Superintendent's Signature and Date</b>	<b>Principal's Signature and Date</b>	<b>Teacher's Signature and Date</b>
--	---	---

**1997 SUMMER TEACHER ENRICHMENT PROGRAM  
VERIFICATION OF PARTICIPANT'S COMMITMENT**

QUESTION #	COMMENTS
2	Teacher provided no explanation for not giving copy of Action Plan to principal.
3	August 10-11; I will conduct two inservice workshops during May when students are out; second workshop is pending upon completion of computer lab changes.
5	I plan to attend the state conference in the fall 1998.
<p><b>ADDITIONAL COMMENTS:</b></p> <p>I plan to attend the state conference in the fall of 1998.</p> <p>I conducted the second workshop 3-24-98 at Greenfield High School.</p> <p>I will be conducting two workshops this summer. One will be for all middle school science teachers in the county; the second will be for teachers at my school.</p> <p>I will conduct two inservice workshops during May when students are out.</p>	



